

IN THE CLAIMS:

The following is a complete listing of the pending claims:

Claims 1 – 5. (cancelled)

6. (currently amended) A stacked inductor comprising:

a semiconductor substrate;

a plurality of conductive layers formed on the substrate, the plurality of conductive layers being arranged from a first conductive layer closest to the substrate to a last conductive layer furthest from the substrate; and

a plurality of conductive spirals corresponding to the plurality of conductive layers such that a first spiral is formed in the corresponding first conductive layer, a second spiral is formed in the corresponding second conductive layer, and so on, wherein each spiral includes at least two concentric turns coiled from a first end at an outer radius of the spiral to a second end at an inner radius of the spiral; wherein the first end of the first spiral forms a first port for the inductor, a second end of the first spiral couples through a first via to the second end of the second spiral, the first end of the second spiral couples through a second via to the first end of the third spiral, and so on such that the second end of the next-to-last spiral couples through a last via to the second end of the last spiral, the first end of the last spiral forming a second port for the inductor

~~a first spiral inductor of at least two concentric turns having a first end at an outer radius of said spiral and a second end at an inner radius of said spiral on a first layer of a substrate; and~~

~~a second spiral inductor having a first end at an inner radius of said spiral and a second end at an outer radius of said spiral on a second layer of said substrate;~~

~~said first end of said second spiral inductor electrically coupled to said second end of said first spiral inductor through a via disposed between the first and second layers.~~

7. (currently amended) The stacked inductor of Claim 6, wherein each turn of each spiral comprises five or more linear segments ~~further comprising a third spiral inductor having a first end at an outer radius of said spiral and a second end at an inner radius of said spiral on a third layer of said substrate, wherein said second end of said second spiral inductor electrically coupled to said first end of said third spiral inductor.~~

8. (currently amended) The stacked inductor of Claim 6, wherein said first and second spiral inductors each spiral has a ~~have~~ thickness of between 1 and to 4 μm .

9. (currently amended) The stacked inductor of Claim 6, wherein ~~said first and second~~ each spiral inductors comprise ~~comprises~~ a conductive metal taken from the group consisting of Cu, Al and alloys thereof.

10. (currently amended) The stacked inductor of Claim 7, wherein the number of linear segments equals eight ~~A stacked inductor comprising:~~

~~a substrate; and~~

~~a plurality of planar spiral-shaped inductors having a first end and a second end, each planar spiral-shaped inductor disposed on a different layer of said substrate;~~

~~a first end of each of said planar spiral shaped inductors electrically coupled to a second of another planar spiral shaped inductors disposed on an adjacent layer.~~

11. (currently amended) The stacked inductor of Claim 6 ~~10~~, wherein the first port is coupled to a power supply ~~said plurality of planar spiral shaped inductors comprises spiral inductors formed into concentric shapes of at least two turns, wherein each turn includes at least five straight segments.~~

Claims 12 – 16. (cancelled)